

11/1/2017 9:45 AM

DOCKET NO. D-1993-068 CP-3

DELAWARE RIVER BASIN COMMISSION

**Lower Bucks County Joint Municipal Authority
Wastewater Treatment Plant
Bristol Township, Bucks County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Lower Bucks County Joint Municipal Authority (LBCJMA or docket holder) on August 29, 2016 (Application), for renewal of the docket holder's existing industrial wastewater treatment plant (WWTP) and its discharge. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0026468 for this facility was issued by the Pennsylvania Department of Environmental Protection (PADEP) on October 24, 2012, effective November 1, 2012.

The Application was reviewed for continuation of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Bucks County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on November 15, 2017.

A. DESCRIPTION

- Purpose.** The purpose of this docket is to renew approval of the docket holder's existing 10 million gallons per day (mgd) WWTP (referred to as Levittown WWTP) and its discharge.
- Location.** The WWTP discharge will continue to discharge treated effluent to Delaware River at River Mile 122.1 via Outfall No. 001 to Water Quality Zone 2, in the Bristol Township, Bucks County, Pennsylvania as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	40° 07' 40"	74° 49' 33"

3. Area Served. The docket holder's WWTP will continue to serve Bristol, Falls, and Middletown Townships located in Bucks County, Pennsylvania. For the purpose of defining the Area Served, Section B (Type of Discharge) and D (Service Area) of the docket holder's Application are incorporated herein by reference, to the extent consistent with all other conditions contained in the DECISION Section of this docket.

4. Physical Features.

a. Design Criteria. The docket holder's WWTP will continue to operate using activated sludge treatment with chlorine contact tank disinfection. No modifications are proposed to the facility.

b. Facilities. The WWTP consists of a grit removal system, two flow equalization tanks, five primary settling tanks, four aeration tanks, five secondary settling tanks, a dissolved air flotation system for sludge dewatering and thickening, three single-stage completely mixed anaerobic digesters, one secondary anaerobic digester, a sludge dewatering centrifuge, a filter press system, and a chlorine contact tank system.

The project facilities are not located in the 100-year floodplain.

Wasted sludge will continue to be hauled off-site by a licensed hauler for disposal at a state approved facility.

c. Water withdrawals. The potable water supply in the project service area is supplied by the docket holder's distribution system. The water withdrawal from the Delaware River is described in detail in Docket No. D-1969-190 CP, which was approved on February 25, 1970.

d. NPDES Permit / DRBC Docket. NPDES Permit No. PA0026468 was issued by the PADEP on October 24, 2012 (effective November 1, 2012) and includes final effluent limitations for the project discharge of 10 mgd to surface waters classified by the PADEP as Warm Water Fishery and Migratory Fishery (WWF, MF). The following average monthly effluent limits are among those listed in the NPDES Permit and meet or are more stringent than the effluent requirements of the DRBC.

EFFLUENT TABLE A-1: DRBC Parameters Included in NPDES Permit

OUTFALL 001 (Discharging to Delaware River)		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times	As required by NPDES Permit
Total Suspended Solids	30 mg/l	As required by NPDES Permit
CBOD ₂₀	2,410 lbs/day (88.5% minimum removal)	As required by NPDES Permit
CBOD ₅ (at 20° C)	20 mg/l	As required by NPDES Permit
Ammonia Nitrogen	35 mg/l	As required by NPDES Permit

OUTFALL 001 (Discharging to Delaware River)		
PARAMETER	LIMIT	MONITORING
Fecal Coliform	200 colonies per 100 ml as a geo. avg.	As required by NPDES Permit
PCBs*	Monitor & Report	As required by NPDES Permit
Acute Toxicity - Fathead minnow (<i>Pimephales promelas</i>)	Monitor & Report	2/Year**
Chronic Toxicity - Fathead minnow (<i>Pimephales promelas</i>)	Monitor & Report	2/Year**
Acute Toxicity - Cladoceran (<i>Ceriodaphnia dubia</i>)	Monitor & Report	2/Year**
Chronic Toxicity - Cladoceran (<i>Ceriodaphnia dubia</i>)	Monitor & Report	2/Year**

*See DECISION Condition C.II.v.

**See FINDINGS Section and DECISION Condition C.II.w.

The requirements in EFFLUENT TABLE A-2 are not listed in the NPDES Permit, but are Commission basin-wide parameters that must be met as a condition of this docket approval (See DECISION Condition C.II.d.).

EFFLUENT TABLE A-2: DRBC Parameters Not Included in NPDES Permit

OUTFALL 001 (Discharging to Delaware River)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids	1,000 mg/l *	Quarterly *

* See DECISION Condition C.II.s.

e. **Cost.** There are no construction costs associated with this WWTP renewal.

f. **Relationship to the Comprehensive Plan.** The docket holder's WWTP was added to the Comprehensive Plan by issuance of Docket No. D-1965-066 CP on July 28, 1965. The facility was modified as described in Docket Nos. D-1968-099 CP, D-1996-053 CP, and D-1993-068 CP approved on August 27, 1969, October 30, 1985, and March 23, 1994, respectively. The project was continued in the Comprehensive Plan on July 10, 2013 via Docket No. D-1993-068 CP-2. Issuance of this docket will continue approval of the docket holder's WWTP in the Comprehensive Plan. (See DECISION Condition C.I.c.).

B. FINDINGS

The purpose of this docket is to renew the approval of the existing 10 mgd LBCJMA WWTP and its related discharge. No modifications to the existing facility are proposed.

Acute and Chronic Toxicity

The WWTP currently discharge treated wastewater effluent to Delaware Water Quality Zone 2. DRBC Water Quality Regulations (*WQR*) include stream quality objectives for Zone 2, including criteria to protect the taste and odor of ingested water and fish (Table 4 of *WQR*), to protect aquatic life (Table 5), and to protect human health (Tables 6 & 7). Toxicity in effluent is measured as Whole Effluent Toxicity (WET), and results from both acute and chronic exposures. The acute toxicity stream quality objective for Zone 2 is 0.3 Toxic Units (TU_a = 0.3). The chronic toxicity stream quality objective for Zone 2 is 1.0 Toxic Units (TU_c = 1.0).

The docket holder is required to perform Whole Effluent Toxicity (WET) tests to generate acute toxicity and chronic toxicity data on the fathead minnow (*Pimephales promelas*) and cladoceran (*Ceriodaphnia dubia*) twice per year as described in EFFLUENT TABLE A-1 of this docket. Commission staff recommend that WET tests be performed on both fathead minnow and cladoceran simultaneously to establish the most sensitive species. Results shall be submitted with the report required in DECISION Condition C.II.d. of this docket. Chronic and acute toxicity monitoring for both species must be continued for 10 tests per species. After at least 4 consecutive tests per species have been taken (both chronic and acute), the docket holder may seek approval to limit testing to only the most sensitive species must be granted by the Executive Director prior to eliminating testing for the least sensitive species (See DECISION Condition C.II.v.).

CBOD₂₀ Wasteload Allocation & Monitoring

The Commission's *WQR* provide for the allocation of the stream assimilative capacity where waste discharges would otherwise result in exceeding such capacity. It was determined in the late 1960's that discharges to the Delaware Estuary be limited to a total of 322,000 lbs/day of carbonaceous biochemical (first stage) oxygen demand (CBOD₂₀). In accordance with the *WQR*, the assimilative capacity of each Delaware Estuary zone minus a reserve was originally allocated in 1968 among the individual dischargers based upon the concept of uniform reduction of raw waste in a zone (Zones 2, 3, 4 and 5). The totals and percent reduction for each zone are given in Table 1 of the Commission's *Status of CBOD₂₀ Wasteload Allocations* (Revised October 1, 2000). The WWTP is located in Zone 2 at River Mile 122.1. Zone 2 is currently over allocated and has a minimum percent removal requirement of CBOD₂₀ of 88.5%.

The Commission approved a CBOD₂₀ allocation for the WWTP of 2,410 lbs/day on March 23, 1994 via Docket No. D-1993-068 CP. The PADEP included the 2,410 lbs/day wasteload allocation in their NPDES Permit.

The NPDES permit requires the docket holder to monitor for CBOD₅ daily and CBOD₂₀ twice per week since the issuance of the NPDES Permit. Data confirms that the docket holder will need its full allocation of 2,410 lbs/day as it approaches its hydraulic capacity. Therefore, issuance of this docket continues the allocation of up to 2,410 lbs/day of CBOD₂₀ for the existing facility.

PCBs

The docket holder is required to monitor for 209 PCB congeners using Method 1668A 2 times per year during dry and wet weather at Outfall Nos. 001 and implement Pollution Minimization Plans (PMPs) for PCBs as required in the NPDES Permit (See Condition C.II.u. in the DECISION section of this docket).

Other

At the docket holder's WWTP discharge, the Delaware River is tidal and its flow is regulated by upstream reservoir releases. The Trenton low flow target is 1.62 billion gallons per day (2,500 cfs). In addition to the upstream tidal tributaries at the discharge location, the Trenton target has an estimated seven-day low flow with a recurrence interval of ten years (Q_{7-10}) of 1.702 billion gallons per day (2,634 cfs). The ratio of this low flow to the hydraulic design wastewater discharge from the 10 mgd WWTP is 170 to 1.

The nearest surface water intake of record for public water supply is located on the Delaware River approximately 1.5 River Miles downstream of the docket holder's WWTP, and is operated by the City of Burlington.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

The effluent limits in the NPDES Permit are in compliance with Commission effluent quality requirements, where applicable.

The project is designed to produce a discharge meeting the effluent requirements as set forth in the Commission's *WQR*.

C. DECISION

I. Effective on the approval date for Docket No. D-1993-068 CP-3 below:

a. The project described in Docket No. D-1993-068 CP-2 is removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-1993-068 CP-3; and

b. Docket No. D-1993-068 CP-2 is terminated and replaced by Docket No. D-1993-068 CP-3; and

c. The project and the appurtenant facilities described in Section A "Physical Features" of this docket shall be continued in the Comprehensive Plan.

II. The project and appurtenant facilities as described in Section A “Physical Features” of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP in its NPDES Permit.

b. The facility and operational records shall be available at all times for inspection by the DRBC.

c. The facility shall be operated at all times to comply with the requirements of the Commission’s *WQR*.

d. The docket holder shall comply with the requirements contained in the EFFLUENT TABLES in Section A.4.d. of this docket. The docket holder shall submit the required monitoring results electronically to the DRBC Project Review Section via email aemr@drbc.state.nj.us on the **Annual Effluent Monitoring Report Form** located at this web address: <http://www.state.nj.us/drbc/programs/project/pr/info.html>. The monitoring results shall be submitted annually, absent any observed limit violations, by January 31. If a DRBC effluent limit is violated, the docket holder shall submit the result(s) to the DRBC within 30 days of the violation(s) and provide a written explanation that states the action(s) the docket holder has taken to correct the violation(s) and protect against any future violations.

e. Except as otherwise authorized by this docket, if the docket holder seeks relief from any limitation based upon a DRBC water quality standard or minimum treatment requirement, the docket holder shall apply for approval from the Executive Director or for a docket revision in accordance with Section 3.8 of the *Compact* and the *Rules of Practice and Procedure*.

f. If at any time the receiving treatment plant proves unable to produce an effluent that is consistent with the requirements of this docket approval, no further connections shall be permitted until the deficiency is remedied.

g. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

h. The docket holder is permitted to treat and discharge wastewaters as set forth in the Area Served Section of this docket, which incorporates by reference Sections B (Type of Discharge) and D (Service Area) of the docket holder’s Application to the extent consistent with all other conditions of this DECISION Section.

i. The docket holder shall discharge wastewater in such a manner as to avoid injury or damage to fish or wildlife and shall avoid any injury to public or private property.

j. No sewer service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

k. The issuance of this docket approval shall not create any private or proprietary rights in the waters of the Basin, and the Commission reserves the right to amend, suspend or rescind the docket for cause, in order to ensure proper control, use and management of the water resources of the Basin.

l. The docket holder is responsible for timely submittal to the DRBC of a docket renewal application on the appropriate application form including the appropriate docket application filing fee (see 18 CFR 401.43) at least 6 months in advance of the docket expiration date set forth below. The docket holder will be subject to late filed renewal surcharges in the event of untimely submittal of its renewal application, whether or not DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below, the terms and conditions of the current docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

m. The docket holder shall be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations (see 18 CFR 401.43).

n. This approval is transferable by request to the DRBC Executive Director provided that the project purpose and area served approved by the Commission in this docket will not be materially altered because of the change in project ownership. The request shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).

o. The docket holder shall request a name change of the entity to which this approval is issued if the name of the entity to which this approval is issued changes its name. The request for name change shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).

p. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

q. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the Rules of Practice and Procedure. In accordance with Section 15.1(p) of the Delaware River Basin Compact, cases and controversies arising under the Compact are reviewable in the United States district courts.

r. The docket holder may request of the Executive Director in writing the substitution of specific conductance for TDS. The request should include information that supports the effluent specific correlation between TDS and specific conductance. Upon review, the Executive Director may modify the docket to allow the substitution of specific conductance for TDS monitoring.

s. Nothing in this docket constitutes a defense to any penalty action for past conduct of the docket holder or ongoing activity not authorized by this approval. In particular, renewal of this docket does not resolve violations – whether in the past or continuing – of provisions of the Delaware River Basin Compact (“Compact”) or any rule, regulation, order or approval duly issued by the Commission or the Executive Director pursuant to the Compact. The Commission reserves its right to take appropriate enforcement action against the docket holder, including but not limited to recovery of financial penalties consistent with Section 14.17 of the Compact, for any and all such prior or continuing violations.

t. The docket holder is prohibited from treating/pre-treating any hydraulic fracturing wastewater from sources in or out of the Basin at this time. Should the docket holder wish to treat/pre-treat hydraulic fracturing wastewater in the future, the docket holder will need to first apply to the Commission to renew this docket and be issued a revised docket allowing such treatment and an expanded service area. Failure to obtain this approval prior to treatment/pre-treatment will result in action by the Commission.

u. The docket holder shall continue to submit PCB monitoring data and PMP Annual Reports to the Commission’s Science & Water Quality Management Branch as required in the existing NPDES Permit.

v. EFFLUENT TABLE A-1 of this docket requires that WET tests be performed on both fathead minnow and cladoceran simultaneously with the same frequency. Monitoring shall be continued until at least 10 tests per species have been completed. After completing 4 tests per species, the docket holder may request by letter to the Executive Director to limit testing to the most sensitive species. Approval to limit testing to only the most sensitive species must be granted by the Executive Director prior to eliminating the testing for the least sensitive species.

BY THE COMMISSION

DATE APPROVED:

EXPIRATION DATE: October 31, 2022